

PROPOSED CAAPP PERMIT
Dow Chemical
June 29, 2005

217/782-2113

RENEWAL
TITLE V - CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT
and
TITLE I PERMIT¹

PERMITTEE:

The Dow Chemical Company
Attn: Julie Woodard
26332 South Frontage Road
Channahon, Illinois 60410

I.D. No.: 197800AAJ
Application No.: 95110022

Date Received: February 4, 2004
Date Issued: To Be Determined
Expiration Date¹: + 5 years

Operation of: Organic Chemical and Foam Board Manufacturing Plant
Source Location: 26332 Frontage Road, Channahon, Will County,
Responsible Official: Gregory G. Kuhn, Site Leader

This permit is hereby granted to the above-designated Permittee to OPERATE a storage terminal, a chemical manufacturing plant and an expanded polystyrene foam board manufacturing plant pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

If you have any questions concerning this permit, please contact Dan Punzak at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:DGP:psj

cc: Illinois EPA, FOS, Region 1
CES
Lotus Notes

¹ This permit contains terms and conditions that address the applicability, and, if determined applicable, substantive requirements of Title I of the Clean Air Act (CAA) and regulations promulgated thereunder, including 40 CFR 52.21, Prevention of Significant Deterioration (PSD) and 35 IAC Part 203, Major Stationary Sources Construction and Modification. The authority for these provisions is found in these regulations and in the general authority provided to the Illinois EPA by Section 9.1 of the Environmental Protection Act (Act) and Sections 39(a) and 39.5(7)(a) of the Act, which authorize the Illinois EPA to include conditions in permits that are required to accomplish the purposes of the Act. Any such terms and conditions are specifically identified within this permit as T1 conditions. These terms and conditions continue in effect as provided by Condition 8.7 of this permit, notwithstanding the expiration date specified above, as their authority derives from Title I, as well as from Title V of the CAA.

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1.0 SOURCE IDENTIFICATION

1.1 Source

The Dow Chemical Company
26332 South Frontage Road
Channahon, Illinois 60410
815/423-2635

I.D. No.: 197800AAJ
County: Will
Standard Industrial Classification: 3086, Plastic Foam Products
Secondary Classification: 2821, Organic Chemical Manufacturing

1.2 Owner/Parent Company

The Dow Chemical Company
26332 South Frontage Road
Channahon, Illinois 60410

1.3 Operator

The Dow Chemical Company
26332 South Frontage Road
Channahon, Illinois 60410

Julie Woodard
815/423-2635

2.0 LIST OF ABBREVIATIONS AND ACRONYMS COMMONLY USED

ACMA	Alternative Compliance Market Account
Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
ATU	Allotment Trading Unit
BACT	Best Available Control Technology
BAT	Best Available Technology
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CO	Carbon Monoxide
ERMS	Emissions Reduction Market System
HAP	Hazardous Air Pollutant
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
ILCS	Illinois Compiled Statutes
Illinois EPA	Illinois Environmental Protection Agency
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
NESHAP	National Emission Standards for Hazardous Air Pollutants
Non-VOM	Organic materials which are not ozone precursors
NO _x	Nitrogen Oxides
NSPS	New Source Performance Standards
PM	Particulate Matter
PM ₁₀	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
ppm	parts per million
ppmv	parts per million by volume
PSD	Prevention of Significant Deterioration
RMP	Risk Management Plan
SO ₂	Sulfur Dioxide
T1	Title I - identifies Title I conditions that have been carried over from an existing permit
T1N	Title I New - identifies Title I conditions that are being established in this permit
T1R	Title I Revised - identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit
TOC	Total Organic Compounds
USEPA	United States Environmental Protection Agency
VOM	Volatile Organic Material

3.0 CONDITIONS FOR INSIGNIFICANT ACTIVITIES

3.1 Identification of Insignificant Activities

The following activities at the source constitute insignificant activities as specified in 35 IAC 201.210:

- 3.1.1 Activities determined by the Illinois EPA to be insignificant activities, pursuant to 35 IAC 201.210(a)(1) and 201.211, as follows:

Polystyrene feed hopper
Additive Transport System

- 3.1.2 Activities that are insignificant activities based upon maximum emissions, pursuant to 35 IAC 201.210(a)(2) or (a)(3), as follows:

Two Recycle Polystyrene Hoppers
Recycle Silo
Steam Generator
Flexo Printer
HCFC-142b Storage Tanks with Vapor Lock Balance
Recovery System

- 3.1.3 Activities that are insignificant activities based upon their type or character, pursuant to 35 IAC 201.210(a)(4) through (18), as follows:

Direct combustion units designed and used for comfort heating purposes and fuel combustion emission units as follows: (A) Units with a rated heat input capacity of less than 2.5 mmBtu/hr that fire only natural gas, propane, or liquefied petroleum gas; (B) Units with a rated heat input capacity of less than 1.0 mmBtu/hr that fire only oil or oil in combination with only natural gas, propane, or liquefied petroleum gas; and (C) Units with a rated heat input capacity of less than 200,000 Btu/hr which never burn refuse, or treated or chemically contaminated wood [35 IAC 201.210(a)(4)].

Printing operations with aggregate organic solvent usage that never exceeds 750 gallons per year from all printing lines at the source, including organic solvent from inks, dilutents, fountain solutions, and cleaning materials [35 IAC 201.210(a)(14)].

- 3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b). Note: These activities are not required to be individually listed.

3.2 Compliance with Applicable Requirements

Insignificant activities are subject to applicable requirements notwithstanding status as insignificant activities. In particular, in

addition to regulations of general applicability, such as 35 IAC 212.301 and 212.123 (Condition 5.3.2), the Permittee shall comply with the following requirements, as applicable:

- 3.2.1 For each particulate matter process emission unit, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322 (see Attachment 2) and 35 IAC Part 266. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the emission unit's process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.
- 3.2.2 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 218.301, which requires that organic material emissions not exceed 8.0 pounds per hour or, if no odor nuisance exists, do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.
- 3.2.3 For each cold cleaning degreaser, the Permittee shall comply with the applicable equipment and operating requirements of 35 IAC 218.182.
- 3.2.4 For each storage tank that has a storage capacity greater than 946 liters (250 gallons) and, if no odor nuisance exists, that stores an organic material with a vapor pressure exceeding 2.5 psia at 70 °F, the Permittee shall comply with the applicable requirements of 35 IAC 218.122, which requires use of a permanent submerged loading pipe, submerged fill, or a vapor recovery system.
- 3.2.5 For each organic material emission unit that is exempt from 35 IAC 218 Subparts QQ and TT, the Permittee shall maintain emissions of VOM to the atmosphere less than or equal to 2.3 Mg (2.5 tons) per calendar year. The total emissions from emission units (including insignificant and significant activities) not complying with 35 IAC Subparts QQ and TT shall not exceed 4.5 Mg (5.0 tons) per calendar year.
- 3.2.6 For each organic material emission unit that is exempt from 35 IAC 218 Subparts PP and RR, the Permittee shall maintain emissions of VOM to the atmosphere less than or equal to 0.91 Mg (1.0 tons) per calendar year. The total emissions from emission units (including insignificant and significant activities) not complying with 35 IAC 218 Subpart PP and RR shall not exceed 4.5 Mg (5.0 tons) per calendar year.

3.3 Addition of Insignificant Activities

- 3.3.1 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type that is identified in Condition 3.1, until the renewal application for this permit is submitted, pursuant to 35 IAC 201.212(a).

- 3.3.2 The Permittee must notify the Illinois EPA of any proposed addition of a new insignificant activity of a type addressed by 35 IAC 201.210(a) and 201.211 other than those identified in Condition 3.1, pursuant to Section 39.5(12)(b) of the Act.
- 3.3.3 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type identified in 35 IAC 201.210(b).

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

Emission Unit	Description	Date Constructed	Emission Control Equipment
Storage Tanks B310, B320, B340	Terminal - Tanks Vented to Condensers	1982	Condensers
Other Storage and Blending Tanks (~ 64)	Terminal - Tanks Not Vented to Condensers	1982	None
Loading and Unloading Racks	Railcar, Tank Trucks and Barges	1982	Vapor Balance for Some Tanks
V-1001, V-1030, V-601, TV-152, TV-1200, V-211, V-225, V-230, V-240, TV-156, V-503, V-504, V-517, Tank Truck Loading	Polystyrene Process Unit Ducted to Common Vent	1974	Firebox of Dowtherm Heater (PS)
ME-740, 741, 742	Dies	1974	Demister
TV-155, TV-114, V-901, V-902, V-1021, V-930, V-112	Polystyrene Process Uncontrolled Units	1974	
Dowtherm Heater (PS)	Gas-Fired 10.0 mmBtu/hr	1974	Firebox is Control for Process
Fugitive Leaks			LDAR
VT-1, RD-20, R-21, R-22, BT-23, BT-24, VT-30 to VT-34, 36, 37	Vinyl Ester Resin Units Vented to Control	1976	Chilled Scrubber
VT-2, VT-3, VT-6, VT-7, VT-51, VT-70, D-20, Drumming, Tank Truck Loading, Railcar Loading, Fugitive Leaks	Vinyl Ester Resin Uncontrolled Units	1976	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
Dowtherm Heater (VER)	Gas-Fired 6.0 mmBtu/hr	1976	None
019	Polystyrene Silo	1981	----
024	Recycle Hopper	1981	Baghouse
025	Plastic (Foam) Processing	1981	----
029	Foam Warehouse	1981	----

5.0 OVERALL SOURCE CONDITIONS

5.1 General Source Description

5.1.1 The Dow Chemical Company is located at 26332 South Frontage Road in Channahon, Will County, Illinois. The source manufactures expanded polystyrene foam boards which are used as insulation in the building industry. Dow also manufactures polystyrene and vinyl ester resin and operates a storage distribution terminal for liquid chemicals.

5.1.2 This source is located in an area that is in non-attainment of the National Ambient Air Quality Standards for ozone and PM_{2.5} and attainment for all other pollutants.

5.2 Major Source Status

5.2.1 This permit is issued based on the source requiring a CAAPP permit as a major source of emissions of HCFC-142b, a Class II ozone depleting substance that is addressed by the Montreal protocol.

5.3 General Applicable Provisions and Regulations

5.3.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions for Specific Emission Units) of this permit.

5.3.2 In addition, emission units at this source are subject to the following regulations of general applicability:

- a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.
- b. Pursuant to 35 IAC 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, except as allowed by 35 IAC 212.123(b) and 212.124.
- c. Pursuant to 35 IAC 237.102, no person shall cause or allow open burning, except the Illinois EPA may grant permits for open burning in accordance with 35 IAC 237.201.
- d. Emissions of VOM from all combined emission units at this source that are subject to 35 IAC 218 Subpart RR and not controlled shall not exceed 5.0 tons per calendar year in order to meet the exemption level in 35 IAC 218.960(d).

Limits of 1.0 tons per calendar year per individual emission units are specified in sections that follow but this combined limit includes units from two separate sections.

5.3.3 Fugitive Particulate Matter Operating Program

- a. This source shall be operated under the provisions of an operating program prepared by the Permittee and submitted to the Illinois EPA for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions [35 IAC 212.309(a)].
- b. The operating program shall be amended from time to time by the Permittee so that the operating program is current. Such amendments shall be consistent with the requirements set forth by this Condition and shall be submitted to the Illinois EPA [35 IAC 212.312].
- c. All normal traffic pattern roads and parking facilities located at this source shall be paved or treated with water, oils, or chemical dust suppressants. All paved areas shall be cleaned on a regular basis. All areas treated with water, oils, or chemical dust suppressants shall have the treatment applied on a regular basis, as needed, in accordance with the operating program [35 IAC 212.306].

5.3.4 Ozone Depleting Substances

The Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

5.3.5 Risk Management Plan (RMP)

- a. This stationary source, as defined in 40 CFR 68.3, is subject to 40 CFR Part 68, the federal regulations for Chemical Accident Prevention. This condition is imposed in this permit pursuant to 40 CFR 68.215(a)(1).

- b. The owner or operator of a stationary source shall revise and update the RMP submitted pursuant to 40 CFR 68.150, as specified in 40 CFR 68.190.

5.3.6 Future Emission Standards

- a. Should this stationary source become subject to a regulation under 40 CFR Parts 60, 61, 62, or 63, or 35 IAC Subtitle B after the date issued of this permit, then the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by Condition 9.8. This permit may also have to be revised or reopened to address such new regulations (see Condition 9.12.2).
- b. No later than upon the submittal for renewal of this permit, the owner or operator shall submit, as part of an application, the necessary information to address either the non-applicability of, or demonstrate compliance with all applicable regulations under 40 CFR Parts 60, 61, 62, or 63, or 35 IAC Subtitle B that were promulgated after the date issued of this permit.

5.3.7 Episode Action Plan

- a. Pursuant to 35 IAC 244.142, the Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan) for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The plan shall contain the information specified in 35 IAC 244.144.
- b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared.
- c. If an operational change occurs at the source which invalidates the plan, a revised plan shall be submitted to the Illinois EPA for review within 30 days of the change, pursuant to 35 IAC 244.143(d). Such plans shall be further revised if disapproved by the Illinois EPA.

5.3.8 PM₁₀ Contingency Measure Plan

Should this stationary source fulfill the criteria in 35 IAC 212.700 and become subject to the requirement to prepare and submit a contingency measure plan reflecting the PM₁₀ emission reductions as set forth in 35 IAC 212.701 and 212.703, then the Permittee shall submit such plan to the Illinois EPA for review and approval within ninety (90) days after the date this source

becomes subject to this requirement. Such plan will be incorporated by reference into this permit and shall be implemented by the Permittee in accordance with 35 IAC 212.704 following notification by the Illinois EPA. The source shall comply with the applicable requirements of 35 IAC Part 212, Subpart U, incorporated herein by reference.

5.4 General Non-Applicability of Regulations of Concern

General non-applicability of regulations of concern are not set for this source. However, there may be unit specific non-applicability of regulations of concern set forth in Section 7 of this permit.

5.4.1 This permit is issued based on the source not being subject to 40 CFR Part 63, Subpart JJJ (Group IV Polymers), because the source is not a major source of HAPs. (See also Condition 5.6.2)

5.4.2 This permit is issued based on the source not being subject to 40 CFR Part 63, Subpart EEEE (Organic Liquids Distribution), because the source is not a major source of HAPs. (See also Condition 5.6.2)

5.4.3 This permit is issued based on the source not being subject to 40 CFR Part 63, Subpart FFFF (Miscellaneous Organic Chemical Manufacturing [MON]), because the source is not a major source of HAPs.

5.5 General Source-Wide Control Requirements and Work Practices

General source-wide control requirements and work practices are not set for this source. However, there are source-wide requirements in the Standard Permit Conditions in Section 9. There may also be requirements for unit specific control requirements and work practices set forth in Section 7 of this permit.

5.6 General Source-Wide Production and Emission Limitations

5.6.1 Permitted Emissions for Fees

The annual emissions from the source, not considering insignificant activities as addressed by Section 3.0 of this permit, shall not exceed the following limitations. The overall source emissions shall be determined by adding emissions from all emission units. Compliance with these limits shall be determined on a calendar year basis. These limitations (Condition 5.6.1) are set for the purpose of establishing fees and are not federally enforceable (see Section 39.5(18) of the Act).

Permitted Emissions of Regulated Pollutants^a

Pollutant	Tons/Year
Volatile Organic Material (VOM)	23.5
Sulfur Dioxide (SO ₂)	4.5
Particulate Matter (PM)	31.0
Nitrogen Oxides (NO _x)	8.1
HAP, not included in VOM or PM	12.0
Total	79.1

^a The only material this source is major for is HCFC-142b, a Class II chlorofluorocarbon, which is not a VOM and for which fees are not assessed.

5.6.2 Emissions of Hazardous Air Pollutants

The emissions of HAPs from the source shall be less than 10 tons/year for each individual HAP and 25 tons/year for all HAPs combined. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total). This condition is being imposed so that the source is not a major source of HAP emissions. The Permittee shall fulfill the applicable testing, recordkeeping, and reporting requirements of Conditions 5.7.2, 5.9., and 5.10.2.

5.6.3 Other Source-Wide Emission Limitations

Other source-wide emission limitations are not set for this source pursuant to the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21, state rules for Major Stationary Sources Construction and Modification, 35 IAC Part 203, or Section 502(b)(10) of the CAA. However, there may be unit specific emission limitations set forth in Section 7 of this permit pursuant to these rules.

5.7 General Testing Requirements

5.7.1 Pursuant to 35 IAC 201.282 and Section 4(b) of the Act, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:

- a. Testing by Owner or Operator: The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field

of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests [35 IAC 201.282(a)].

- b. Testing by the Illinois EPA: The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary [35 IAC 201.282(b)].
- c. Any such tests are also subject to the Testing Procedures of Condition 8.5 set forth in the General Permit Conditions of Section 8.

5.8 General Monitoring Requirements

General monitoring requirements are not set for this source. However, there may be provisions for unit specific monitoring set forth in Section 7 of this permit.

5.9 General Recordkeeping Requirements

5.9.1 Annual Emission Records

The Permittee shall maintain records of total annual emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions for Specific Emission Units) of this permit to demonstrate compliance with Condition 5.6.1, pursuant to Section 39.5(7)(b) of the Act.

5.9.2 Records for HAP Emissions

The Permittee shall maintain records of HAP emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions for Specific Emission Units) of this permit, pursuant to Section 39.5(7)(b) of the Act.

- a. The Permittee shall maintain records of individual and combined HAP emissions on a monthly and annual basis for the emission units covered by Section 7 (Unit Specific Conditions for Specific Emission Units) of this permit to demonstrate compliance with Condition 5.6.2, pursuant to Section 39.5(7)(b) of the Act.
- b. If testing is required by Condition 5.7.2, the Permittee shall keep records of the testing, including the test date, conditions, methodologies, calculations, test results, and any discrepancies between the test results and formulation specifications of Condition 5.9.2(c) below.

- c. The Permittee shall keep records of all units not complying with the control requirements of 35 IAC 218 Subpart RR but comply by using the 1.0 ton per year exemption provided in 218.960(d) in order to demonstrate that all of the units using this exemption do not exceed 5.0 tons per year.

5.9.3 Retention and Availability of Records

- a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.
- b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.

5.10 General Reporting Requirements

5.10.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the source with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken. There are also reporting requirements for unit specific emission units set forth in Section 7 of this permit.

If the monthly calculation of the rolling 12-month total of any individual HAP exceeds 10 tons or the 12-month total for all HAPs exceeds 25 tons, the Permittee shall notify the Illinois EPA that they have become a major source of HAPs.

5.10.2 Annual Emissions Report

The annual emissions report required pursuant to Condition 9.7 shall contain emissions information, including HAP emissions, for the previous calendar year.

5.10.3 Other Source-Wide Reporting Requirements

None

5.11 General Operational Flexibility/Anticipated Operating Scenarios

Source-wide operational flexibility is not set for this source. However, there may be provisions for unit specific operational flexibility set forth in Section 7 of this permit.

Pursuant to Section 39.5(7)(1)(i) of the Act, the Permittee is authorized to make the following physical or operational changes without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

None

5.12 General Compliance Procedures

5.12.1 General Procedures for Calculating Emissions

- a. Except as provided in Condition 9.1.3, compliance with the source-wide emission limits specified in Condition 5.6 shall be based on the recordkeeping and reporting requirements of Conditions 5.9 and 5.10, and compliance procedures in Section 7 (Unit Specific Conditions for Specific Emission Units) of this permit.
- b. For the purpose of estimating VOM emissions from the storage tanks, the current version of the TANKS program or AP-42 emission factors is acceptable.
- c. For the purpose of estimating fugitive VOM emissions from leaking components at the source, the emission factors found in "Method 3, Leak Rate Screening Valve Correlations" published by USEPA on the Technology Transfer Network bulletin board are acceptable.
- d. For the purpose of estimating HAP emissions from equipment at the source, the vapor weight percent of each HAP for each organic liquid times the VOM emissions contributed by that organic liquid is acceptable.

6.0 CONDITIONS FOR EMISSIONS CONTROL PROGRAMS

6.1 Emissions Reduction Market System (ERMS)

6.1.1 Description of ERMS

The ERMS is a "cap and trade" market system for major stationary sources located in the Chicago ozone nonattainment area. It is designed to reduce VOM emissions from stationary sources to contribute to reasonable further progress toward attainment, as required by Section 182(c) of the CAA.

The ERMS addresses VOM emissions during a seasonal allotment period from May 1 through September 30. Participating sources must hold "allotment trading units" (ATUs) for their actual seasonal VOM emissions. Each year participating sources are issued ATUs based on allotments set in the sources' CAAPP permits. These allotments are established from historical VOM emissions or "baseline emissions" lowered to provide the emissions reductions from stationary sources required for reasonable further progress.

By December 31 of each year, the end of the reconciliation period following the seasonal allotment period, each source shall have sufficient ATUs in its transaction account to cover its actual VOM emissions during the preceding season. A transaction account's balance as of December 31 will include any valid ATU transfer agreements entered into as of December 31 of the given year, provided such agreements are promptly submitted to the Illinois EPA for entry into the transaction account database. The Illinois EPA will then retire ATUs in sources' transaction accounts in amounts equivalent to their seasonal emissions. When a source does not appear to have sufficient ATUs in its transaction account, the Illinois EPA will issue a notice to the source to begin the process for Emissions Excursion Compensation.

In addition to receiving ATUs pursuant to their allotments, participating sources may also obtain ATUs from the market, including ATUs bought from other participating sources and general participants in the ERMS that hold ATUs (35 IAC 205.630) and ATUs issued by the Illinois EPA as a consequence of VOM emissions reductions from an Emissions Reduction Generator or an Intersector Transaction (35 IAC 205.500 and 35 IAC 205.510). During the reconciliation period, sources may also buy ATUs from a secondary reserve of ATUs managed by the Illinois EPA, the "Alternative Compliance Market Account" (ACMA) (35 IAC 205.710). Sources may also transfer or sell the ATUs that they hold to other sources or participants (35 IAC 205.630).

6.1.2 Applicability

This source is considered a "participating source" for purposes of the ERMS, 35 IAC Part 205.

6.1.3 Obligation to Hold Allotment Trading Units (ATUs)

- a. Pursuant to 35 IAC 205.150(c)(1) and 35 IAC 205.720, and as further addressed by Condition 6.1.8, as of December 31 of each year, this source shall hold ATUs in its account in an amount not less than the ATU equivalent of its VOM emissions during the preceding seasonal allotment period (May 1 - September 30), not including VOM emissions from the following, or the source shall be subject to "emissions excursion compensation," as described in Condition 6.1.5.
 - i. VOM emissions from the polystyrene manufacturing process (Section 7.7), the vinyl ester manufacturing process (Section 7.3) or the storage terminal (Section 7.1). These processes are included in the CAAPP permit only because of HAP emissions.
 - ii. VOM emissions from insignificant emission units and activities as identified in Section 3 of this permit, in accordance with 35 IAC 205.220;
 - iii. Excess VOM emissions associated with startup, malfunction, or breakdown of an emission unit as authorized in Section 7.0 of this permit, in accordance with 35 IAC 205.225;
 - iv. Excess VOM emissions to the extent allowed by a Variance, Consent Order, or Compliance Schedule, in accordance with 35 IAC 205.320(e)(3);
 - v. Excess VOM emissions that are a consequence of an emergency as approved by the Illinois EPA, pursuant to 35 IAC 205.750; and
 - vi. VOM emissions from certain new and modified emission units as addressed by Condition 6.1.8(b), if applicable, in accordance with 35 IAC 205.320(f).
- b. Notwithstanding the above condition, in accordance with 35 IAC 205.150(c)(2), if a source commences operation of a major modification, pursuant to 35 IAC Part 203, the source shall hold ATUs in an amount not less than 1.3 times its seasonal VOM emissions attributable to such major modification during the seasonal allotment period, determined in accordance with the construction permit for such major modification or applicable provisions in Section 7.0 of this permit.

6.1.4 Market Transactions

- a. The source shall apply to the Illinois EPA for and obtain authorization for a Transaction Account prior to conducting any market transactions, as specified at 35 IAC 205.610(a).

- b. The Permittee shall promptly submit to the Illinois EPA any revisions to the information submitted for its Transaction Account, pursuant to 35 IAC 205.610(b).
- c. The source shall have at least one account officer designated for its Transaction Account, pursuant to 35 IAC 205.620(a).
- d. Any transfer of ATUs to or from the source from another source or general participant must be authorized by a qualified Account Officer designated by the source and approved by the Illinois EPA, in accordance with 35 IAC 205.620, and the transfer must be submitted to the Illinois EPA for entry into the Transaction Account database.

6.1.5 Emissions Excursion Compensation

Pursuant to 35 IAC 205.720, if the source fails to hold ATUs in accordance with Condition 6.1.3, it shall provide emissions excursion compensation in accordance with the following:

- a. Upon receipt of an Excursion Compensation Notice issued by the Illinois EPA, the source shall purchase ATUs from the ACMA in the amount specified by the notice, as follows:
 - i. The purchase of ATUs shall be in an amount equivalent to 1.2 times the emissions excursion; or
 - ii. If the source had an emissions excursion for the seasonal allotment period immediately before the period for the present emissions excursion, the source shall purchase ATUs in an amount equivalent to 1.5 times the emissions excursion.
- b. If requested in accordance with paragraph (c) below or in the event that the ACMA balance is not adequate to cover the total emissions excursion amount, the Illinois EPA will deduct ATUs equivalent to the specified amount or any remaining portion thereof from the ATUs to be issued to the source for the next seasonal allotment period.
- c. Pursuant to 35 IAC 205.720(c), within 15 days after receipt of an Excursion Compensation Notice, the owner or operator may request that ATUs equivalent to the amount specified be deducted from the source's next seasonal allotment by the Illinois EPA, rather than purchased from the ACMA.

6.1.6 Quantification of Seasonal VOM Emissions

- a. The methods and procedures specified in Sections 5 and 7 of this permit for determining VOM emissions and compliance with VOM emission limitations shall be used for determining

seasonal VOM emissions for purposes of the ERMS, with the following exceptions [35 IAC 205.315(b)]:

No exceptions

- b. The Permittee shall report emergency conditions at the source to the Illinois EPA, in accordance with 35 IAC 205.750, if the Permittee intends to deduct VOM emissions in excess of the technology-based emission rates normally achieved that are attributable to the emergency from the source's seasonal VOM emissions for purposes of the ERMS. These reports shall include the information specified by 35 IAC 205.750(a), and shall be submitted in accordance with the following:
 - i. An initial emergency conditions report within two days after the time when such excess emissions occurred due to the emergency; and
 - ii. A final emergency conditions report, if needed to supplement the initial report, within 10 days after the conclusion of the emergency.

6.1.7 Annual Account Reporting

- a. For each year in which the source is operational, the Permittee shall submit, as a component of its Annual Emissions Report, seasonal VOM emissions information to the Illinois EPA for the seasonal allotment period. This report shall include the following information [35 IAC 205.300]:
 - i. Actual seasonal emissions of VOM from the source;
 - ii. A description of the methods and practices used to determine VOM emissions, as required by this permit, including any supporting documentation and calculations;
 - iii. A detailed description of any monitoring methods that differ from the methods specified in this permit, as provided in 35 IAC 205.337;
 - iv. If a source has experienced an emergency, as provided in 35 IAC 205.750, the report shall reference the associated emergency conditions report that has been approved by the Illinois EPA;
 - v. If a source's baseline emissions have been adjusted due to a Variance, Consent Order, or CAAPP permit Compliance Schedule, as provided for in 35 IAC 205.320(e)(3), the report shall provide documentation quantifying the excess VOM emissions during the season that were allowed by the Variance, Consent

Order, or Compliance Schedule, in accordance with 35 IAC 205.320(e) (3); and

- vi. If a source is operating a new or modified emission unit for which three years of operational data is not yet available, as specified in 35 IAC 205.320(f), the report shall specify seasonal VOM emissions attributable to the new emission unit or the modification of the emission unit.
- b. This report shall be submitted by November 30 of each year, for the preceding seasonal allotment period.

6.1.8 Allotment of ATUs to the Source

- a.
 - i. The allotment of ATUs to this source is 742 ATUs per seasonal allotment period.
 - ii. This allotment of ATUs reflects the Illinois EPA's determination that the source's baseline emissions were 84.3 tons per season.
 - A. This determination includes the use of 1994 and 1995 as baseline seasons.
 - B. This determination also includes adjustment to actual emissions to account for voluntary over-compliance at the source, e.g., a reduction in the use of blowing agent per unit of production, pursuant to 35 IAC 205.320(d), as further addressed in Section 7 of this permit.
 - iii. The source's allotment reflects 88% of the baseline emissions (12% reduction), except for the VOM emissions from specific emission units excluded from such reduction, pursuant to 35 IAC 205.405, including units complying with MACT or using BAT, as identified in Condition 6.1.10 of this permit.
 - iv. ATUs will be issued to the source's Transaction Account by the Illinois EPA annually. These ATUs will be valid for the seasonal allotment period following issuance and, if not retired in this season, the next seasonal allotment period.
 - v. Condition 6.1.3(a) becomes effective beginning in the seasonal allotment period following the initial issuance of ATUs by the Illinois EPA into the Transaction Account for the source.
- b. Contingent Allotments for New or Modified Emission Units

None

- c. Notwithstanding the above, part or all of the above ATUs will not be issued to the source in circumstances as set forth in 35 IAC Part 205, including:
 - i. Transfer of ATUs by the source to another participant or the ACMA, in accordance with 35 IAC 205.630;
 - ii. Deduction of ATUs as a consequence of emissions excursion compensation, in accordance with 35 IAC 205.720; and
 - iii. Transfer of ATUs to the ACMA, as a consequence of shutdown of the source, in accordance with 35 IAC 205.410.

6.1.9 Recordkeeping for ERMS

The Permittee shall maintain copies of the following documents as its Compliance Master File for purposes of the ERMS [35 IAC 205.700(a)]:

- a. Seasonal component of the Annual Emissions Report;
- b. Information on actual VOM emissions, as specified in detail in Sections 5 and 7 of this permit and Condition 6.1.6(a); and
- c. Any transfer agreements for the purchase or sale of ATUs and other documentation associated with the transfer of ATUs.

6.1.10 Exclusions from Further Reductions

- a. VOM emissions from the following emission units shall be excluded from the VOM emissions reductions requirements specified in 35 IAC 205.400(c) and (e) as long as such emission units continue to satisfy the following [35 IAC 205.405(a)]:
 - i. Emission units that comply with any NESHAP or MACT standard promulgated pursuant to the CAA;
 - ii. Direct combustion emission units designed and used for comfort heating purposes, fuel combustion emission units, and internal combustion engines; and
 - iii. An emission unit for which a LAER demonstration has been approved by the Illinois EPA on or after November 15, 1990.

The source has demonstrated in its ERMS application and the Illinois EPA has determined that the following emission units qualify for exclusion from further reductions because

they meet the criteria as indicated above [35 IAC 205.405(a) and (c)]:

None

- b. VOM emissions from emission units using BAT for controlling VOM emissions shall not be subject to the VOM emissions reductions requirement specified in 35 IAC 205.400(c) or (e) as long as such emission unit continues to use such BAT [35 IAC 205.405(b)].

The source has demonstrated in its ERMS application and the Illinois EPA has determined that the following emission units qualify for exclusion from further reductions because these emission units use BAT for controlling VOM emissions as indicated above [35 IAC 205.405(b) and (c)]:

None

7.0 UNIT SPECIFIC CONDITIONS FOR SPECIFIC EMISSION UNITS

7.1 Storage Terminal

7.1.1 Description

The Permittee also operates a Midwest bulk liquid distribution facility at the site. Materials are received by barge, rail or trucks, unloaded into storage tanks, and then loaded for distribution, primarily by truck. VOM emissions result from breathing, working, and loading losses. Although some tanks may be dedicated to one material, the Permittee has the flexibility to store various materials in the tanks provided that the tank is in compliance with applicable requirements.

7.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
Storage Tanks B310, B320, B340	Tanks Vented to Condensers	1982	Condensers
Other Storage and Blending Tank (~ 64)	Not Vented to Condensers	1982	None
Loading and Unloading Racks	Railcar, Tank Trucks and Barges	1982	Vapor Balance for the following: Tanks: V210, V230, V310, V320 and V520.

7.1.3 Applicable Provisions and Regulations

- a. The "affected storage terminal" for the purpose of these unit-specific conditions, is a terminal consisting of loading and unloading racks and storage tanks for liquid chemicals, primarily organic chemicals. The tanks and racks are described in Conditions 7.1.1 and 7.1.2.
- b. The affected tanks or rack are subject to the emission limits identified in Condition 5.3.2.
- c. The racks and storage tanks are subject to 35 IAC 218.122, which states that:
 - i. No person shall cause or allow the discharge of more than 8 lbs/hr of organic material into the atmosphere during the loading of any organic material from the aggregate loading pipes of any loading area having throughput of greater than 40,000 gal/day into any railroad tank car, tank truck, or trailer unless such loading area is equipped with submerged loading pipes

or a device that is equally effective in controlling emissions and is approved by the Illinois EPA according to the provisions of 35 IAC 201, and further processed consistent with Section 218.108.

- ii. No person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 250 gallon, unless such tank is equipped with a permanent submerged loading pipe or an equivalent device approved by the Illinois EPA according to the provisions of 35 IAC 201, and further processed consistent with Section 218.108, or unless such tank is a pressure tank as described in Section 218.121(a) or is fitted with a recovery system as described in Section 218.121(b) (2).
- iii. Exception: If no odor nuisance exists the limitations above shall only apply to the loading of VOL with a vapor pressure of 2.5 psia or greater at 70°F. Of the current chemicals handled only one material is a VOL with a vapor pressure above 2.5 psia. Materials with a potential odor problem are vented to a scrubber during loadout.
- d. The control requirements for storage containers of VOL (35 IAC 218.120) apply if the exceptions in Section 218.119 do not apply. All of the tanks meet the exceptions, i.e., less than 40,000 gallons or vapor pressure below 0.5 psia if greater than 40,000 gallons.

7.1.4 Non-Applicability of Regulations of Concern

- a. The NSPS for storage tanks do not apply because the tanks size and vapor pressure of the material stored exempt them from applicability.
- b. This permit is issued based on the affected storage tanks not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected storage tanks either do not use an add-on control device to achieve compliance with an emission limitation or standard or do not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.
- c. This permit is issued based on the affected loading racks not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the loading racks use a passive control measure, such as a vapor balance system that is not considered a control device because it acts to prevent the release of pollutants or the racks do not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

- d. This permit is issued based on the affected storage terminal not being subject to 40 CFR Part 63, Subpart EEEE, Organic Liquids Distribution, because the affected source is not a major source of HAPs (See Condition 5.6.2).

7.1.5 Control Requirements and Work Practices

The Permittee shall operate in accordance with the following requirements pursuant to Section 39.5(7)(a) of the Act:

- a. Loading of materials from storage tanks V210, V230, V310, V320 and V520 shall be done using vapor balance lines.
- b. All control devices shall be operated in accordance with manufacturers recommended practices and maintained in proper working condition.

7.1.6 Production and Emission Limitations

In addition to Condition 5.3.2 and the source-wide emission limitations in Condition 5.6, the affected storage terminal is subject to the following pursuant to Section 39.5(7)(a) of the Act:

Emissions from the affected storage terminal and barge loading operation shall not exceed the following limits [T1]:

VOM Emissions	
<u>(ton/month)</u>	<u>(ton/year)</u>
2.0	15.0

These limits are based on the use of AP-42 emission factors for barge loading and storage tanks.

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

The above limitations were established in Construction Permit 01120001, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned Construction Permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203.

7.1.7 Testing Requirements

Testing requirements are not set for the affected storage terminal. However, there are general testing requirements in Conditions 5.7 and 8.5.

7.1.8 Monitoring Requirements

The Permittee shall operate in accordance with the following requirements pursuant to Section 39.5(7) (b) and (d) of the Act:

The condensers, which are refrigerated, shall be equipped with a device to monitor the temperature and signal if the set point temperature is not being met but the temperature is not required to be recorded.

7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected storage terminal to demonstrate compliance with Conditions 5.6.1, 7.1.3, 7.1.5 and 7.1.6, pursuant to Section 39.5(7) (b) of the Act:

- a. Throughput of each material and storage tank in which it is stored (pounds or gallons per month);
- b. MSDS or other information source showing the vapor pressure of each material;
- c. VOM and HAP emissions; and
- d. Dimensions of each storage tank and calculation of volume of tank.

7.1.10 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of an affected storage terminal with the permit requirements as follows, pursuant to Section 39.5(7) (f) (ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:
 - i. Storage of a material in a tank which does not comply with Condition 7.1.3 or which would make the tank subject to NSPS.
 - ii. Emissions from the storage terminal exceeding the limits in Condition 7.1.6.

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected storage terminal without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

The Permittee may vary the type and quantity of materials stored without prior approval provided the tank is in compliance with Condition 7.1.3 for the material stored and emissions do not exceed Condition 5.6.1 or 7.1.6.

7.1.12 Compliance Procedures

- a. Compliance with Condition 7.1.3(c) is addressed by the records required in Condition 7.1.9(b) and/or by the presence of a submerged loading pipe.
- b. Compliance with Condition 7.1.3(d) is addressed by the requirements of Condition 9.2.2 and the records required in Condition 9.6.1.
- c. Compliance with Condition 7.1.5(b) is addressed by the records required in Condition 9.6.1.
- d. Compliance with the VOM emission limitation of Condition 7.1.6 is addressed by the records required in Condition 7.1.9(c).
- e. Emissions from the storage tanks shall be calculated using a TANKS program or the use of AP-42 emission factors, Fifth Edition, Section 7.1. For the tanks vented to a condenser, the temperature of the condenser may be used as the temperature of the material stored and the vapor pressure at that temperature used for the calculation.

7.2 Polystyrene Plant

7.2.1 Description

Polystyrene is a polymer of styrene so that in the reactors there is a cross-linking between styrene molecules but not a reaction between two different materials. A small amount of rubber improves the impact quality of the product. Ethylbenzene and mineral oil are initially added but do not react and are removed after the reaction. The common vent units are in compliance by venting to the fire box of the Dowtherm heater. The product is a solid (pellets).

7.2.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
V-1021, V-1030, V-601, V-611, T-152, TV-1200, V-211, V-225, V-240, T-156, V-503, V-504, V-517, Tank Truck Loading	Unit Ducted to Common (Vacuum) Vent	1974	Fire Box of Dowtherm Heater
ME-740, 741, 742	Dies	1974	Demister
TV-155, TV-114, V-901, V-902, V-1070, TV-110, V-930, V-112, Tank Truck Loading	Uncontrolled Units	1974	None
Dowtherm Heater	Gas-Fired 10.0 mmBtu/hr		Firebox is Control for Process
Fugitive Leaks			LDAR

7.2.3 Applicable Provisions and Regulations

- The "affected polystyrene plant" for the purpose of these unit-specific conditions, is a process line that includes any of the various pieces of equipment described in Conditions 7.2.1 and 7.2.2.
- The affected polystyrene plant is subject to the emission limits identified in Condition 5.3.2.
- The Permittee shall also comply with the equipment leak provisions of 35 IAC 218 Subpart Q.
- VOM emissions from the material recovery section (vacuum vent) shall not exceed 0.12 kg of VOM per 1,000 kg of polystyrene produced (0.12 pounds of VOM per 1,000 pounds of polystyrene). [35 IAC 218.642]

- e. No person shall cause or allow the emission of more than 8 lb/hr of organic material into the atmosphere from any emission unit unless controlled by a thermal or catalytic incinerator which reduces emissions by 85%. If no odor nuisance exists, the limitations shall only apply to photochemically reactive material (35 IAC 218.301 and 218.302). Styrene is a photochemically reactive material.
- f. Continuous emission units within the polystyrene process other than the material recovery section are subject to 35 IAC 218 Subpart RR as explained in Section 218.960(b) (1). However, the Permittee qualifies those units under the exemption in Section 218.960(d). Emissions from those units shall not exceed 1.0 ton per calendar year and from all units included with the exemption not exceed 5.0 tons per calendar year. Continuous units other than the material recovery section does not include storage tanks or tank truck loading.
- g. The movement of product, polystyrene pellets, by air conveyors is subject to 35 IAC 212.321(a). This rule is written out in Attachment 2. The pellets are not considered to be emitters of VOM.

7.2.4 Non-Applicability of Regulations of Concern

- a. The material recovery section of the polystyrene process is not subject to 35 IAC 218 Subpart RR: Miscellaneous Organic Chemical Manufacturing Processes because Section 218.960(a) (1) states that units subject to 35 IAC 218 Subpart BB are not subject to Subpart RR.
- b. Storage tanks are not subject to 35 IAC 218.120 because the applicability requirements in Section 218.119 exempt tanks due to the vapor pressure and/or tank volume. The tanks are exempt from 35 IAC 218.122(b) due to the vapor pressure exemption in Section 218.122(c).
- c. The Dowtherm heater is not subject to 35 IAC 216.121, which states that CO emissions shall not exceed 200 ppm because the heat input is less than 10 mmBtu/hr.
- d. The Dowtherm heater is not subject to the NO_x limitation of 35 IAC 217.121 because the heat input is less than 250 mmBtu/hr.
- e. The polystyrene process is not subject to 40 CFR 63 Subpart JJJ, NESHAP for Group IV Polymers, because it is not located at a plant site that is a major source [40 CFR 63.1310(a) (6)].

7.2.5 Control Requirements and Work Practices

The firebox of the Dowtherm heater shall be operated so that emissions of VOM from the material recovery section do not exceed 0.12 kg of VOM per 1000 kg of polystyrene produced, i.e. comply with Condition 7.2.3(d).

After testing, if required, the temperature for achieving compliance shall be defined as within 15°C (as an hourly average) of the temperature at which the most recent compliance test demonstrating compliance was conducted.

7.2.6 Production and Emission Limitations

Production and emission limitations are not set for the affected polystyrene plant. However, there are general source-wide production and emission limitations set forth in Condition 5.6.

7.2.7 Testing Requirements

The Permittee shall operate in accordance with the following requirements pursuant to Section 39.5(7)(a) of the Act:

- a. Upon request by the Illinois EPA, the emissions from the common vent shall be tested to verify that they continue to meet compliance with Condition 7.2.3(d).
- b. The Permittee shall conduct an LDAR program as required by 35 IAC 218 Subpart Q and Condition 7.2.3(c) employing USEPA Method 21.
- c. If testing is required to establish a new compliance temperature to meet the requirements of Condition 7.2.5, the testing shall be performed within 150 days of issuance of this permit. During the testing procedure, a test that does not achieve compliance during a one hour test will not be considered noncompliance provided that compliance on a 24 hour basis is achieved.

7.2.8 Monitoring Requirements

The Permittee shall operate in accordance with the following requirements pursuant to Section 39.5(7)(b) of the Act:

- a. Vacuum vent temperature (°C).
- b. Vacuum vent pressure (psia).
- c. Dowtherm heater combustion temperature (°C).
- d. Blower functioning on demister (on/off).
- e. Compliance Assurance Monitoring (CAM) Requirements

The affected polystyrene plant is subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources. The Permittee shall comply with the monitoring requirements of the Compliance Assurance Monitoring (CAM) Plan described in Attachment 3, Table 3 pursuant to 40 CFR Part 64 as submitted in the Permittee's CAM plan application. The Permittee shall maintain records of the monitoring data, monitor performance data, corrective actions taken, monitoring equipment maintenance, and other supporting information, as required by 40 CFR 64.9(b)(1).

7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected polystyrene process to demonstrate compliance with Condition 5.6.1, 7.2.3 and 7.2.8, pursuant to Section 39.5(7)(b) of the Act:

- a. Items monitored in Condition 7.2.8.
- b. Results of LDAR testing and repair of components found leaking.
- c. VOM and HAP emissions from the affected polystyrene process.
- d. A record of any past firebox destruction efficiency tests must be kept beyond the 5 years specified by Condition 9.6.3. Results of past tests must be kept until another test is performed or 15 years
- e. Due to the small size of the Dowtherm heater, gas usage to this particular unit does not have to be metered but may be estimated based on percentages of plant total and heat demand. The estimated gas usage may be used to calculate NO_x and CO emissions.
- f. Records of units in this affected polystyrene process that do not comply with the control requirements of 35 IAC 218 Subpart RR but instead use the 1.0 ton per year exemption listed in 218.960(d).

7.2.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected polystyrene process with the permit requirements, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

- a. Noncompliance with Condition 7.2.3(c).

b. Reporting of Compliance Assurance Monitoring (CAM)

The Permittee shall submit monitoring reports to the Illinois EPA in accordance with Condition 8.6.1 and shall include, at a minimum, the information required under Condition 8.6.1 and the following information [40 CFR 64.6(c) (3), 64.9(a) (1), and (2)]:

- i. Summary information on the number, duration, and cause of excursions or exceedances, and the corrective actions taken [40 CFR 64.6(c) (3) and 64.9(a) (2) (i)]; and
- ii. Summary information on the number, duration, and cause for monitoring equipment downtime incidents, other than downtime associated with calibration checks [40 CFR 64.6(c) (3) and 64.9(a) (2) (ii)].

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected polystyrene process without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

Use of different raw materials that affect the properties of the polystyrene but not emissions from the process.

7.2.12 Compliance Procedures

- a. Compliance with Condition 7.2.3(c) is addressed by the testing requirements of Condition 7.2.7(b) and records required in Condition 7.2.9(d).
- b. Compliance with Condition 7.2.3(d) and (e) are addressed by the control requirements of Condition 7.2.5, the CAM monitoring requirements in Condition 7.2.8(e), the records required in Condition 7.2.9(a) and the reporting requirements of Condition 7.2.10(b).
- c. Compliance with Condition 7.2.3(f) is addressed by the records required in Conditions 7.2.9(f) and 5.9.2(d).
- d. Compliance with Condition 7.2.3(g) is based on the relatively large size of the pellets and are not classified as an air pollutant because they are not suspended in air.
- e. Emissions from the affected Dowtherm heater shall be calculated using the following. The heat contribution from

the process gases vented to the heater do not have to be included.

- i. A. Emission factors for the affected boiler when fired by natural gas:

<u>Pollutant</u>	Emission Factors	
	<u>(lb/mmscf)</u>	
VOM	5.5	
PM	7.6	
SO ₂	0.6	
NO _x	100	
CO	84	

The emission factors (lb/mmscf) are for Natural Gas-Fired Small Boilers (<100 mmBtu/hr Heat Input) from AP-42 Section 1.4 (dated 3/98).

- B. Emission formula for the affected boiler when fired by natural gas:

(Boiler Emissions, lb) = (The Appropriate Emission Factor, lb/mmscf) x (Natural Gas Usage, mmscf)

7.3 Vinyl Ester Resin Plant

7.3.1 Description

The vinyl ester resin plant has low emissions but the principal material is styrene, a HAP. The one control device is a scrubber which uses chilled styrene as the scrubbant. Numerous vents are ducted to the scrubber. Total VOM emissions after control are typically less than 2 tons/yr, with VOM from uncontrolled units less than 1.0 tons/yr.

7.3.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
VT-1, RD-20, R-21, R-22, BT-23, BT-24, VT-30 TO 34, 36, 37	Units vented to control	1976	Chilled Scrubber
VT-2, VT-3, VT-6, VT-7, VT-70, VT-51, D-20, Drum Handling, Truck Loading, Tote Loading, Railcar Loading, Fugitive Leaks	Uncontrolled Units	1976	None
Dowtherm Heater (VER)	Gas-Fired 6.0 mmBtu/hr	1976	None

7.3.3 Applicable Provisions and Regulations

- a. The "affected vinyl ester resin plant" for the purpose of these unit-specific conditions, is a process consisting of the units listed in Conditions 7.3.1 and 7.3.2 excluding the Dowtherm heater.
 - i. The vinyl ester resin process is subject to 35 IAC 218 Subpart V, Batch Operations.
 - A. Within Section 218.500(c) are two levels of operation defined as de minimis and exempted from the control requirements of Section 218.501. The Permittee has control equipment that complies with Section 218.501(a), although the entire process may qualify for the exemption in Section 218.500(c) (2) of uncontrolled VOM emissions of less than 15 tons/year.

- B. 35 IAC 218.501(a) requires that the control equipment reduce VOM emissions by an overall average efficiency of 90 percent, or 20 ppmv, per batch cycle.
 - C. The Permittee has not used the provision in 35 IAC 218.501(c) that states that if control equipment was operated prior to March 15, 1995 and can demonstrate that 90% control cannot be achieved, that 81% control is acceptable until the control device is replaced.
 - D. The units in Condition 7.3.2 that are not controlled are not part of the batch process but are storage, loading, and drumming operations.
- ii. No person shall cause or allow the emission of more than 8 lb/hr of organic material into the atmosphere from any emission unit unless controlled by a thermal or catalytic incinerator which reduces emission by 85%. If no odor nuisance exists, the limitations shall only apply to photochemically reactive material. (35 IAC 218.301 and 218.302).

Styrene, the principal VOM emitted, is a photochemically reactive material.

Compliance with condition 7.3.3(a)(i) shall be deemed compliance with this limit.

- b. The affected vinyl ester resin process is subject to the emission limits identified in Condition 5.3.2.
- c. Malfunction and Breakdown Provisions

The Permittee is authorized to continue operation of the affected batch vinyl ester resin plant in violation of the applicable standards in Condition 7.3.2(b) in the event of a malfunction or breakdown of the affected chilled scrubber, subject to the following provisions. This authorization is provided pursuant to 35 IAC 201.262 as the Permittee has submitted proof that continued operation is required to provide essential service, prevent risk of injury to personnel or severe damage to equipment. This authorization supersedes the general prohibition in Condition 9.2.3 against continued operation in such circumstances:

- i. This authorization only allows such continued operation as necessary to provide essential service or prevent risk of injury to personnel or severe damage to equipment and does not extend to continued operation solely for the economic benefit of the

Permittee. As provided by 35 IAC 201.265, this authorization does not shield the Permittee from enforcement for any such violation and shall only constitute a prima facie defense to such an enforcement action provided that the Permittee has fully complied with all associated terms and conditions.

- ii. Upon occurrence of excess emissions due to malfunction or breakdown, the Permittee shall as soon as practical reduce operation, repair, or remove the affected vinyl ester resin plant from service so that excess emissions cease. The Permittee may complete processing of the materials in the equipment vented to the chilled scrubber at the time of the breakdown, but no new batch of materials may begin until the chilled scrubber is functioning in its normal temperature and flow rate range.
- iii. A. The Permittee shall fulfill the applicable recordkeeping and reporting requirements of Conditions 7.3.9(c) and 7.3.10(a)(ii).

B. Following notification to the Illinois EPA of a malfunction or breakdown with excess emissions, the Permittee shall comply with all reasonable directives of the Illinois EPA with respect to such incident, pursuant to 35 IAC 201.263.

7.3.4 Non-Applicability of Regulations of Concern

- a. The vinyl ester resin process is not subject to 35 IAC 218 Subpart RR, Miscellaneous Organic Chemical Manufacturing Processes because 35 IAC 218.960(a)(1) and (b)(1)(A) both state that emission units that are regulated by 218 Subpart V are not regulated by Subpart RR. This process is regulated by Subpart V.
- b. The vinyl ester resin process is not subject to any NSPS or NESHAP regulations because none of the chemicals produced are listed in tables of those rules as follows:

<u>Specific Rule</u>	<u>Process Type</u>	<u>Table of Affected Chemicals</u>
40 CFR 60 Subpart RRR	SOCMI Reactor Processes	Section 60.707
40 CFR 63 Subparts F, G & H	Hazardous Organic NESHAP	Table 1 in Subpart F

- c. This permit is issued based on the affected vinyl ester resin plant not being subject to 40 CFR Part 63, Subpart

FFFF (The MON), because the affected vinyl ester resin plant is not located at a major source of HAPs.

7.3.5 Control Requirements and Work Practices

The Permittee shall operate in accordance with the following requirements pursuant to Section 39.5(7)(a) of the Act:

The scrubber shall be operated as a chilled unit with the temperature necessary to control emissions by a minimum of 90%.

7.3.6 Production and Emission Limitations

In addition to Condition 5.3.2 and the source-wide emission limitations in Condition 5.6, the affected vinyl ester resin plant is subject to the following:

Emissions of VOM from VT-2, VT-3, VT-51 and D-20 shall not exceed 1.0 tons per calendar year from each individual unit. See also Condition 5.3.2(d) which limits combined emissions from these units and others.

7.3.7 Testing Requirements

Testing requirements are not set for the affected vinyl ester resin plant. However, there are general testing requirements in Conditions 5.7 and 8.5.

Upon written request from the Illinois EPA, the control efficiency of the scrubber shall be determined to verify compliance with Condition 7.3.3(a) or the emissions from VT-2, VT-3, VT-51 or D-20 determined to verify that they continue to meet the individual or combined exemption levels from requiring control.

7.3.8 Monitoring Requirements

a. Compliance Assurance Monitoring (CAM) Requirements

The affected vinyl ester resin plant is subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources. The Permittee shall comply with the monitoring requirements of the Compliance Assurance Monitoring (CAM) Plan described in Attachment 3, Table 4 pursuant to 40 CFR Part 64 as submitted in the Permittee's CAM plan application. The Permittee shall maintain records of the monitoring data, monitor performance data, corrective actions taken, monitoring equipment maintenance, and other supporting information, as required by 40 CFR 64.9(b)(1).

7.3.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected vinyl ester resin plant to demonstrate compliance with Condition(s) 5.6.1 and 7.3.3, 7.3.5 and 7.3.6, pursuant to Section 39.5(7) (b) of the Act:

- a. Scrubbant temperature (°C);
- b. VOM and HAP emissions (lb/mo);
- c. A record of any past scrubber efficiency test must be kept beyond the 5 years specified in Condition 9.6.3. Results of past tests must be kept until another test is performed or 15 years.
- d. If no new batches are begun after malfunction or breakdown of the chilled scrubber, only the date and time of the event and number of batches in process that were completed need be recorded.

7.3.10 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected vinyl ester resin plant with the permit requirements as follows, pursuant to Section 39.5(7) (f) (ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:
 - i. Scrubber temperature above normal such that 90% efficiency is not achieved.
 - ii. If a new batch was begun while the chilled scrubber was in a period of malfunction and breakdown.
- b. Reporting of Compliance Assurance Monitoring (CAM)

The Permittee shall submit monitoring reports to the Illinois EPA in accordance with Condition 8.6.1 and shall include, at a minimum, the information required under Condition 8.6.1 and the following information [40 CFR 64.6(c) (3), 64.9(a) (1), and (2)]:

- i. Summary information on the number, duration, and cause of excursions or exceedances, and the corrective actions taken [40 CFR 64.6(c) (3) and 64.9(a) (2) (i)]; and
- ii. Summary information on the number, duration, and cause for monitoring equipment downtime incidents, other than downtime associated with calibration checks [40 CFR 64.6(c) (3) and 64.9(a) (2) (ii)].

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected vinyl ester resin plant. However, there may be provisions for source-wide operational flexibility set forth in Condition 5.11 of this permit.

7.3.12 Compliance Procedures

- a. Compliance with Condition 7.3.3(a) is addressed by the requirements of Condition 7.3.5, the testing requirements in Condition 7.3.7, the monitoring requirements in Condition 7.3.8, the records required in Conditions 7.3.9(a) and (b) and the reporting requirements of Condition 7.3.10(a).
- b. Compliance with Condition 7.3.3(c) is addressed by the records required in Condition 7.3.9(d) and the reporting requirements of Condition 7.3.10(a).
- c. For vinyl ester resin process:

Use of past scrubber efficiency test and engineering calculations. Emissions from this entire process, including storage, loading and fugitive leaks are typically less than 3.0 tons/year.
- d. Storage tanks and loading losses are determined by use of AP-42 emission factors.
- e. Fugitive emissions are determined from historical monitoring data.

7.4 Recycle Hopper

7.4.1 Description

Plastic shavings are airveyed into a baghouse, which then fall into a hopper and are augured out. The shavings contain the VOM and/or non-VOM blowing agents which are continuously emitted. Control is for PM only, not VOM.

7.4.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
024	Recycle Hopper with Baghouse	1981	None. Since the baghouse is an integral part of product recovery it is not classified as a control device but operational requirements are the same whether control device or not.

7.4.3 Applicable Provisions and Regulations

- a. The "affected recycle hopper" for the purpose of these unit-specific conditions, is an emission unit described in Conditions 7.4.1 and 7.4.2.
- b. The affected recycle hopper is subject to the emission limits identified in Condition 5.3.2.
- c. The system is subject to 35 IAC 212.321(a), which is written out in Condition 5.3.2(d).
- d. The owner or operator of this emission unit shall not cause or allow the discharge of more than 8 lb/hr of organic material into the atmosphere. If no odor nuisance exists, this limitation shall apply only to photochemically reactive material, pursuant to the definition in 35 IAC 211.4690. (35 IAC 218.301).

7.4.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected recycle hopper not being subject to 35 IAC 218 Subpart TT, because the affected recycle hopper qualifies for the exemption listed in 35 IAC 218.980(f).
- b. This permit is issued based on the affected recycle hopper not being subject to 40 CFR Part 63, Subpart JJJ, because the affected recycle hopper is located at a source that is

not major for HAPs and also Subpart JJJ does not regulate the solid polymer product but only the initial manufacturing process.

- c. This permit is issued based on the affected recycle hopper not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected recycle hopper does not use an add-on control device to achieve compliance with an emission limitation or standard.

7.4.5 Control Requirements and Work Practices

The Permittee shall operate in accordance with the following requirements pursuant to Section 39.5(7)(a) of the Act.

The process is shutdown in an orderly manner if a bag break occurs.

7.4.6 Production and Emission Limitations

Production and emission limitations are not set for the affected recycle hopper. However, there are general source-wide production and emission limitations set forth in Condition 5.6.

7.4.7 Testing Requirements

Testing requirements are not set for the affected recycle hopper. However, there are general testing requirements in Conditions 5.7 and 8.5.

7.4.8 Inspection Requirements

The Permittee shall operate in accordance with the following requirements pursuant to Section 39.5(7)(a) of the Act:

Daily visual observation of stack for indication of bag break. An observation is not required on days when the system is not operating.

7.4.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected recycle hopper to demonstrate compliance with Conditions 5.6.1 and 7.4.6, pursuant to Section 39.5(7)(b) of the Act:

- a. Daily stack observation.
- b. Material throughput (lb/mo).
- c. VOM emissions (lb/mo).

- d. Non-VOM emissions (lb/mo).
- e. HAP emissions (lb/mo).
- f. PM emissions (lb/mo).
- g. Emission factors (plant specific) of VOM and HAP fumes (lb/ton).

7.4.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected recycle hopper with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

Continued operation after bag break.

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected recycle hopper without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

This process emits blowing agent materials that have been introduced elsewhere into the process. These blowing agents may be changed provided that total VOM does not exceed the limit in Condition 5.6.1. The Illinois EPA must be notified if a HAP material is to be used as a blowing agent.

7.4.12 Compliance Procedures

- a. Compliance with Condition 7.4.3(c) is addressed by the requirements of Condition 7.4.5, the inspection requirements in Condition 7.4.8, and the records required in Condition 7.4.9(a) and (f).
- b. Compliance with Condition 7.4.3(d) is addressed by the known low emission factors (fumes) of VOM based on previously established tests. The material handled is primarily a solid.

7.5 Foam Processing

7.5.1 Description

The polystyrene beads and additives from a conveyor enter an extrusion system where they mixed and a blowing agent added under high pressure. As the materials leave the extrusion system the lower pressure causes the dissolved blowing agent to expand or foam into a continuous board that is then cut to desired lengths.

7.5.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
025	Foam Processing	1981	None

7.5.3 Applicable Provisions and Regulations

- a. The "affected Foam Processing operation" for the purpose of these unit-specific conditions, is a operation described in Conditions 7.5.1 and 7.5.2.
- b. The affected Foam Processing operation is subject to the emission limits identified in Condition 5.3.2.
- c. Emissions from the Foam Processing operation shall not exceed 8 lb/hr of organic material into the atmosphere. If no odor nuisance exists, this limitation shall apply only to photochemically reactive material, pursuant to the definition in 35 IAC 211.4690. (35 IAC 218.301). Since the operation does not currently have control equipment, the option to comply using control equipment is not cited here.

7.5.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected Foam Processing operation not being subject to the New Source Performance Standards (NSPS) for polymer manufacturing, 40 CFR Part 60, Subpart DDD, because the affected Foam Processing operation does not involve the manufacture of polystyrene but the processing of it after the initial manufacturing.
- b. This permit is issued based on the affected Foam Processing operation not being subject to 35 IAC 218 Subpart TT, because the affected operation meets the exemption stated in 218.980(f).
- c. This permit is issued based on the affected Foam Processing operation not being subject to 40 CFR Part 63, Subpart JJJ, because the affected operation does not involve the manufacture of polystyrene but the processing of it after the initial manufacturing.

- d. This permit is issued based on the affected Foam Processing operation not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected Foam Processing operation does not use an add-on control device to achieve compliance with an emission limitation or standard.

7.5.5 Control Requirements and Work Practices

Control requirements are not set for the affected Foam Processing operation. However, there are source-wide requirements in the Standard Permit Conditions in Section 9. There may also be requirements for general source-wide control requirements set forth in Condition 5.5.

7.5.6 Production and Emission Limitations

Production and emission limitations are not set for the affected Foam Processing operation. However, there are general source-wide production and emission limitations set forth in Condition 5.6.

7.5.7 Testing Requirements

Testing requirements are not set for the affected Foam Processing operation. However, there are general testing requirements in Conditions 5.7 and 8.5.

7.5.8 Monitoring Requirements

Monitoring requirements are not set for the affected Foam Processing operation. However, there may be provisions for source-wide monitoring requirements set forth in Condition 5.8 of this permit.

7.5.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected Foam Processing operation to demonstrate compliance with Conditions 5.6.1 and 7.5.3(c), pursuant to Section 39.5(7)(b) of the Act:

- a. Blowing agent usage (ton/mo);
 - i. VOM Type
 - ii. Non-VOM Type
 - iii. HAP Content of each type
- b. Production (board-feet/mo); and

- c. PM, VOM , non-VOM, and HAP emissions (ton/mo).

7.5.10 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of an affected Foam Processing operation with the permit requirements, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

7.5.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to an affected Foam Processing operation without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

The blowing agents are introduced to the entire process in this step and this determines the type of downstream emissions. These blowing agents may be changed provided that total VOM does not exceed the limit in Condition 5.6.1. The Illinois EPA must be notified if a HAP material is to be used as a blowing agent.

7.5.12 Compliance Procedures

- a. Compliance with Condition 7.5.3(c) is addressed by the records required in Condition 7.5.9(a), that is, that the VOM is not photochemically reactive.
- b. Emissions of VOM and HAPs are determined from plant specific emission factors developed for this process. These factors are based on a material balance for various grades of products and various ambient temperatures.

7.6 Foam Warehouse and Outside Storage

7.6.1 Description

Plastic foam is stored until shipped to customer.

7.6.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
029	Foam Warehouse and Outside Storage		None

7.6.3 Applicable Provisions and Regulations

- a. The "affected Foam Warehouse and Outside Storage" for the purpose of these unit-specific conditions, are emission units described in Conditions 7.6.1 and 7.6.2.
- b. The affected Foam Warehouse and Outside Storage are subject to the emission limits identified in Condition 5.3.2.
- c. Emissions from the Foam Warehouse and Outside Storage shall not exceed 8 lb/hr of organic material into the atmosphere. If no odor nuisance exists, this limitation shall apply only to photochemically reactive material, pursuant to the definition in 35 IAC 211.4690. (35 IAC 218.301). Since the operation does not currently have control equipment, the option to comply using control equipment is not cited here.

7.6.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected Foam Warehouse and Outside Storage not being subject to the New Source Performance Standards (NSPS) for polymer manufacturing, 40 CFR Part 60, Subpart DDD, because the affected Foam Processing operation does not involve the manufacture of polystyrene but the processing of it after the initial manufacturing.
- b. This permit is issued based on the affected Foam Warehouse and Outside Storage not being subject to 35 IAC 218 Subpart TT, because the affected operation meets the exemption stated in 218.980(f).
- c. This permit is issued based on the affected Foam Warehouse and Outside Storage not being subject to 40 CFR Part 63, Subpart JJJ, because the affected operation does not involve the manufacture of polystyrene but the processing of it after the initial manufacturing.

- d. This permit is issued based on the affected Foam Warehouse and Outside Storage not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected Foam Processing operation does not use an add-on control device to achieve compliance with an emission limitation or standard.

7.6.5 Control Requirements and Work Practices

Control requirements are not set for the affected Foam Warehouse and Outside Storage. However, there are source-wide requirements in the Standard Permit Conditions in Section 9. There may also be requirements for general source-wide control requirements set forth in Condition 5.5.

7.6.6 Production and Emission Limitations

Production and emission limitations are not set for the affected Foam Warehouse and Outside Storage. However, there are general source-wide production and emission limitations set forth in Condition 5.6.

7.6.7 Testing Requirements

Testing requirements are not set for the affected Foam Warehouse and Outside Storage. However, there are general testing requirements in Conditions 5.7 and 8.5.

7.6.8 Monitoring Requirements

Monitoring requirements are not set for the affected Foam Warehouse and Outside Storage. However, there may be provisions for source-wide monitoring requirements set forth in Condition 5.8 of this permit.

7.6.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected Foam Warehouse and Outside Storage to demonstrate compliance with Conditions 5.6.1 and 7.7.3(c), pursuant to Section 39.5(7)(b) of the Act:

- a. Month-end inventory; and
- b. VOM and HAP emissions.
- c. Photochemical nature of VOM emissions

7.6.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected Foam Warehouse and Outside Storage with the permit requirements, pursuant to

Section 39.5(7)(f)(iii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

7.6.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected Foam Warehouse and Outside Storage without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

This process emits VOM and non-VOM blowing agent materials that have been introduced elsewhere into the process. These blowing agents may be changed provided that total VOM does not exceed the limit in Condition 5.5.1. The Illinois EPA must be notified if a HAP material is to be used as a blowing agent.

7.6.12 Compliance Procedures

- a. Compliance with Condition 7.6.3(c) is addressed by the records required in Condition 7.6.9(c).
- b. Emissions of VOM and HAPs are determined from plant specific emission factor developed for this process. These factors are based on a material balance for various grades of products and various ambient temperatures. The computer model described in Exhibit 220-6 of the application shall be used.

7.7 Polystyrene Silo

7.7.1 Description

Storage silo for plastic pellets

7.7.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
019	Polystyrene Silo	1981	None

7.7.3 Applicable Provisions and Regulations

- a. The "affected Polystyrene Silo" for the purpose of these unit-specific conditions, is an emission unit described in Conditions 7.7.1 and 7.7.2.
- b. The affected Polystyrene Silo is subject to the emission limits identified in Condition 5.3.2.

7.7.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected Polystyrene Silo not being subject to the New Source Performance Standards (NSPS) for polymer manufacturing, 40 CFR Part 60, Subpart DDD, because the affected Foam Processing operation does not involve the manufacture of polystyrene but the processing of it after the initial manufacturing.
- b. This permit is issued based on the affected Polystyrene Silo not being subject to 35 IAC 218 Subpart TT, because the affected operation meets the exemption stated in 218.980(f).
- c. This permit is issued based on the affected Polystyrene Silo not being subject to 40 CFR Part 63, Subpart JJJ, because the affected operation does not involve the manufacture of polystyrene but the processing of it after the initial manufacturing.
- d. This permit is issued based on the affected Polystyrene Silo not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected Foam Processing operation does not use an add-on control device to achieve compliance with an emission limitation or standard.

7.7.5 Control Requirements and Work Practices

Control requirements are not set for the affected Polystyrene Silo. However, there are source-wide requirements in the Standard Permit Conditions in Section 9. There may also be

requirements for general source-wide control requirements set forth in Condition 5.5.

7.7.6 Production and Emission Limitations

Production and emission limitations are not set for the affected Polystyrene Silo. However, there are general source-wide production and emission limitations set forth in Condition 5.6.

7.7.7 Testing Requirements

Testing requirements are not set for the affected Polystyrene Silo. However, there are general testing requirements in Conditions 5.7 and 8.5.

7.7.8 Monitoring Requirements

Monitoring requirements are not set for the affected Polystyrene Silo. However, there may be provisions for source-wide monitoring requirements set forth in Condition 5.8 of this permit.

7.7.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected Polystyrene Silo to demonstrate compliance with Condition 5.6.1, pursuant to Section 39.5(7)(b) of the Act:

- a. Throughput of pellets (ton/mo); and
- b. Hours of operation (receiving, hours/mo).

7.7.10 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected Polystyrene Silo with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

Operation in excess of design capacity of the system.

7.7.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected Polystyrene Silo without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

The silo may be loaded into from trucks and cartons as well as from railroad cars. The rate from trucks may be higher than railroad cars but within its design capacity.

7.7.12 Compliance Procedures

Operation within design capacity assures compliance.

8.0 GENERAL PERMIT CONDITIONS

8.1 Permit Shield

Pursuant to Section 39.5(7)(j) of the Act, the Permittee has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the Illinois EPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this source and this determination (or a concise summary thereof) is included in this permit.

This permit shield does not extend to applicable requirements which are promulgated after _____ **Error! Bookmark not defined.** (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

8.2 Applicability of Title IV Requirements (Acid Deposition Control)

This source is not an affected source under Title IV of the CAA and is not subject to requirements pursuant to Title IV of the CAA.

8.3 Emissions Trading Programs

No permit revision shall be required for increases in emissions allowed under any USEPA approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for elsewhere in this permit and that are authorized by the applicable requirement [Section 39.5(7)(o)(vii) of the Act].

8.4 Operational Flexibility/Anticipated Operating Scenarios

8.4.1 Changes Specifically Addressed by Permit

Physical or operational changes specifically addressed by the Conditions of this permit that have been identified as not requiring Illinois EPA notification may be implemented without prior notice to the Illinois EPA.

8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes that contravene express permit terms without applying for or obtaining an amendment to this permit, provided that [Section 39.5(12)(a)(i) of the Act]:

- a. The changes do not violate applicable requirements;
- b. The changes do not contravene federally enforceable permit terms or conditions that are monitoring (including test

methods), recordkeeping, reporting, or compliance certification requirements;

- c. The changes do not constitute a modification under Title I of the CAA;
- d. Emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change; and
- e. The Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change. This notice shall:
 - i. Describe the physical or operational change;
 - ii. Identify the schedule for implementing the physical or operational change;
 - iii. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;
 - iv. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and
 - v. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

8.5 Testing Procedures

Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods if applicable test methods are not specified by the applicable regulations or otherwise identified in the conditions of this permit.

Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the Illinois EPA shall be submitted as specified in Conditions 8.6.3 and 8.6.4.

8.6 Reporting Requirements

8.6.1 Monitoring Reports

Reports summarizing required monitoring as specified in the conditions of this permit shall be submitted to the Illinois EPA

every six months as follows, unless more frequent submittal of such reports is required in Sections 5 or 7 of this permit [Section 39.5(7) (f) of the Act]:

<u>Monitoring Period</u>	<u>Report Due Date</u>
January - June	September 1
July - December	March 1

All instances of deviations from permit requirements must be clearly identified in such reports. All such reports shall be certified in accordance with Condition 9.9.

8.6.2 Test Notifications

Unless otherwise specified elsewhere in this permit, a written test plan for any test required by this permit shall be submitted to the Illinois EPA for review at least 60 days prior to the testing pursuant to Section 39.5(7) (a) of the Act. The notification shall include at a minimum:

- a. The name and identification of the affected unit(s);
- b. The person(s) who will be performing sampling and analysis and their experience with similar tests;
- c. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;
- d. The specific determinations of emissions and operation that are intended to be made, including sampling and monitoring locations;
- e. The test method(s) that will be used, with the specific analysis method, if the method can be used with different analysis methods;
- f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and
- g. Any proposed use of an alternative test method, with detailed justification.

8.6.3 Test Reports

Unless otherwise specified elsewhere in this permit, the results of any test required by this permit shall be submitted to the Illinois EPA within 60 days of completion of the testing. The

test report shall include at a minimum [Section 39.5(7)(e)(i) of the Act]:

- a. The name and identification of the affected unit(s);
- b. The date and time of the sampling or measurements;
- c. The date any analyses were performed;
- d. The name of the company that performed the tests and/or analyses;
- e. The test and analytical methodologies used;
- f. The results of the tests including raw data, and/or analyses including sample calculations;
- g. The operating conditions at the time of the sampling or measurements; and
- h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

8.6.4 Reporting Addresses

- a. Unless otherwise specified in the particular provision of this permit or in the written instructions distributed by the Illinois EPA for particular reports, reports and notifications shall be sent to the Illinois EPA - Air Compliance Unit with a copy sent to the Illinois EPA - Air Regional Field Office.
- b. As of the date of issuance of this permit, the addresses of the offices that should generally be utilized for the submittal of reports and notifications are as follows:

- i. Illinois EPA - Air Compliance Unit

Illinois Environmental Protection Agency
Bureau of Air
Compliance & Enforcement Section (MC 40)
P.O. Box 19276
Springfield, Illinois 62794-9276

- ii. Illinois EPA - Air Quality Planning Section

Illinois Environmental Protection Agency
Bureau of Air
Air Quality Planning Section (MC 39)
P.O. Box 19276
Springfield, Illinois 62794-9276

iii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

iv. USEPA Region 5 - Air Branch

USEPA (A - 18J)
Air & Radiation Division
77 West Jackson Boulevard
Chicago, Illinois 60604

- c. Permit applications should be addressed to the Air Permit Section. As of the date of issuance of this permit, the address of the Air Permit Section is as follows:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section (MC 11)
P.O. Box 19506
Springfield, Illinois 62794-9506

8.7 Obligation to Comply with Title I Requirements

Any term, condition, or requirement identified in this permit by T1, T1R, or T1N is established or revised pursuant to 35 IAC Part 203 or 40 CFR 52.21 ("Title I provisions") and incorporated into this permit pursuant to both Section 39.5 and Title I provisions. Notwithstanding the expiration date on the first page of this permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

9.0 STANDARD PERMIT CONDITIONS

9.1 Effect of Permit

9.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule.

9.1.2 In particular, this permit does not alter or affect the following [Section 39.5(7)(j)(iv) of the Act]:

- a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;
- b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and
- d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.

9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, pursuant to Section 39.5(7)(j) and (p) of the Act, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

9.2 General Obligations of Permittee

9.2.1 Duty to Comply

The Permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application [Section 39.5(7)(o)(i) of the Act].

The Permittee shall meet applicable requirements that become effective during the permit term in a timely manner unless an alternate schedule for compliance with the applicable requirement is established.

9.2.2 Duty to Maintain Equipment

The Permittee shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements.

9.2.3 Duty to Cease Operation

No person shall cause, threaten or allow the continued operation of any emission unit during malfunction or breakdown of the emission unit or related air pollution control equipment if such operation would cause a violation of an applicable emission standard, regulatory requirement, ambient air quality standard or permit limitation unless this permit provides for such continued operation consistent with the Act and applicable Illinois Pollution Control Board regulations [Section 39.5(6)(c) of the Act].

9.2.4 Disposal Operations

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated there under.

9.2.5 Duty to Pay Fees

The Permittee must pay fees to the Illinois EPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto [Section 39.5(7)(o)(vi) of the Act]. The check should be payable to "Treasurer, State of Illinois" and sent to: Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois 62794-9276.

9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents as may be required by law and in accordance with constitutional limitations, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Sections 4 and 39.5(7)(a) and (p)(ii) of the Act]:

- a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control equipment),

practices, or operations regulated or required under this permit;

- d. Sample or monitor any substances or parameters at any location:
 - i. At reasonable times, for the purposes of assuring permit compliance or applicable requirements; or
 - ii. As otherwise authorized by the CAA, or the Act.
- e. Obtain and remove samples of any discharge or emission of pollutants authorized by this permit; and
- f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any regulated activity, discharge or emission at the source authorized by this permit.

9.4 Obligation to Comply with Other Requirements

The issuance of this permit does not release the Permittee from applicable State and Federal laws and regulations, and applicable local ordinances addressing subjects other than air pollution control.

9.5 Liability

9.5.1 Title

This permit shall not be considered as in any manner affecting the title of the premises upon which the permitted source is located.

9.5.2 Liability of Permittee

This permit does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the sources.

9.5.3 Structural Stability

This permit does not take into consideration or attest to the structural stability of any unit or part of the source.

9.5.4 Illinois EPA Liability

This permit in no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the source.

9.5.5 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege [Section 39.5(7)(o)(iv) of the Act].

9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

A maintenance record shall be kept on the premises for each item of air pollution control equipment. At a minimum, this record shall show the dates of performance and nature of preventative maintenance activities.

9.6.2 Records of Changes in Operation

A record shall be kept describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes [Section 39.5(12)(b)(iv) of the Act].

9.6.3 Retention of Records

- a. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit [Section 39.5(7)(e)(ii) of the Act].
- b. Other records required by this permit including any logs, plans, procedures, or instructions required to be kept by this permit shall be retained for a period of at least 5 years from the date of entry unless a longer period is specified by a particular permit provision.

9.7 Annual Emissions Report

The Permittee shall submit an annual emissions report to the Illinois EPA, Air Quality Planning Section no later than May 1 of the following year, as required by 35 IAC Part 254.

9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7)(p)(v) of the Act, the Permittee shall submit annual compliance certifications. The compliance certifications shall be submitted no later than May 1 or more frequently as specified in the applicable requirements or by permit condition. The compliance certifications shall be submitted to the Air Compliance Unit, Air Regional Field Office, and USEPA Region 5 - Air Branch. The addresses for the submittal of the compliance certifications are provided in Condition 8.6.4 of this permit.

- a. The certification shall include the identification of each term or condition of this permit that is the basis of the

certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.

- b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.
- c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

9.9 Certification

Any document (including reports) required to be submitted by this permit shall contain a certification by a responsible official of the Permittee that meets the requirements of Section 39.5(5) of the Act and applicable regulations [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as Attachment 1 to this permit.

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit [Section 39.5(7)(o)(ii) of the Act].

9.10.2 Emergency Provision

- a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence [Section 39.5(7)(k) of the Act]:

- i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency.

Note: For this purpose, emergency means a situation arising from sudden and reasonably unforeseeable events beyond the control of the source, as further defined by Section 39.5(7)(k)(iv) of the Act.

- ii. The permitted source was at the time being properly operated;
 - iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed

description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and

- iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.
- b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations [Section 39.5(7)(k)(iv) of the Act].

9.11 Permanent Shutdown

This permit only covers emission units and control equipment while physically present at the indicated source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

9.12 Reopening and Reissuing Permit for Cause

9.12.1 Permit Actions

This permit may be modified, revoked, reopened and reissued, or terminated for cause in accordance with applicable provisions of Section 39.5 of the Act. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition [Section 39.5(7)(o)(iii) of the Act].

9.12.2 Reopening and Revision

This permit must be reopened and revised if any of the following occur [Section 39.5(15)(a) of the Act]:

- a. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit.
- b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program.
- c. The Illinois EPA or USEPA determines that this permit contains a material mistake or that inaccurate statement were made in establishing the emission standards or limitations, or other terms or conditions of this permit.

- d. The Illinois EPA or USEPA determines that this permit must be revised or revoked to ensure compliance with the applicable requirements.

9.12.3 Inaccurate Application

The Illinois EPA has issued this permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation and reissuance under Section 39.5(15) of the Act, pursuant to Sections 39.5(5) (e) and (i) of the Act.

9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Illinois EPA copies of records required to be kept by this permit, or for information claimed to be confidential, the Permittee may furnish such records directly to USEPA along with a claim of confidentiality [Section 39.5(7) (o) (v) of the Act].

9.13 Severability Clause

The provisions of this permit are severable. In the event of a challenge to any portion of the permit, other portions of the permit may continue to be in effect. Should any portion of this permit be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected and the rights and obligations of the Permittee shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements underlying these provisions shall remain in force [Section 39.5(7) (i) of the Act].

9.14 Permit Expiration and Renewal

Upon the expiration of this permit, if the source is operated, it shall be deemed to be operating without a permit unless a timely and complete CAAPP application has been submitted for renewal of this permit. However, if a timely and complete application to renew this CAAPP permit has been submitted, the terms and all conditions of this CAAPP permit will remain in effect until the issuance of a renewal permit [Section 39.5(5) (l) and (o) of the Act].

Note: Pursuant to Sections 39.5(5) (h) and (n) of the Act, upon submittal of a timely and complete renewal application, the permitted source may continue to operate until final action is taken by the Illinois EPA on the renewal application, provided, however, that this protection shall cease if the applicant fails to submit any additional information necessary to evaluate or take final action on the renewal

application as requested by the Illinois EPA in writing. For a renewal application to be timely, it must be submitted no later than 9 months prior to the date of permit expiration.

9.15 General Authority for the Terms and Conditions of this Permit

The authority for terms and conditions of this permit that do not include a citation for their authority is Section 39.5(7)(a) of the Act, which provides that the Illinois EPA shall include such provisions in a CAAPP permit as are necessary to accomplish the purposes of the Act and to assure compliance with all applicable requirements. Section 39.5(7)(a) of the Act is also another basis of authority for terms and conditions of this permit that do include a specific citation for their authority.

Note: This condition is included in this permit pursuant to Section 39.5(7)(n) of the Act.

10.0 ATTACHMENTS

Attachment 1 Example Certification by a Responsible Official

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____

Name: _____

Official Title: _____

Telephone No.: _____

Date Signed: _____

Attachment 2 Emissions of Particulate Matter from Process Emission Units

- a. New Process Emission Units for Which Construction or Modification Commenced On or After April 14, 1972 [35 IAC 212.321].
- i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 [35 IAC 212.321(a)].
- ii. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.321(b)]:

$$E = A(P)^B$$

where:

P = Process weight rate; and
E = Allowable emission rate; and,

- A. Up to process weight rates of 408 Mg/hr (450 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	1.214	2.54
B	0.534	0.534

- B. For process weight rate greater than or equal to 408 Mg/hr (450 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	11.42	24.8
B	0.16	0.16

iii. Limits for Process Emission Units For Which Construction or Modification Commenced On or After April 19, 1972 [35 IAC 212.321(c)]:

Metric P <u>Mg/hr</u>	E <u>kg/hr</u>	English P <u>T/hr</u>	E <u>lb/hr</u>
0.05	0.25	0.05	0.55
0.1	0.29	0.10	0.77
0.2	0.42	0.2	1.10
0.3	0.64	0.30	1.35
0.4	0.74	0.40	1.58
0.5	0.84	0.50	1.75
0.7	1.00	0.75	2.40
0.9	1.15	1.00	2.60
1.8	1.66	2.00	3.70
2.7	2.1	3.00	4.60
3.6	2.4	4.00	5.35
4.5	2.7	5.00	6.00
9.0	3.9	10.00	8.70
13.0	4.8	15.00	10.80
18.0	5.7	20.00	12.50
23.0	6.5	25.00	14.00
27.0	7.1	30.00	15.60
32.0	7.7	35.00	17.00
36.0	8.2	40.00	18.20
41.0	8.8	45.00	19.20
45.0	9.3	50.00	20.50
90.0	13.4	100.00	29.50
140.0	17.0	150.00	37.00
180.0	19.4	200.00	43.00
230.0	22.0	250.00	48.50
270.0	24.0	300.00	53.00
320.0	26.0	350.00	58.00
360.0	28.0	400.00	62.00
408.0	30.1	450.00	66.00
454.0	30.4	500.00	67.00

b. Existing Process Emission Units for Which Construction or Modification Prior to April 14, 1972 [35 IAC 212.322].

- i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].
- ii. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.322(b)]:

$$E = C + A(P)^B$$

where:

P = Process weight rate; and

E = Allowable emission rate; and,

- A. Up to process weight rates up to 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	1.985	4.10
B	0.67	0.67
C	0	0

- B. For process weight rate in excess of 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	25.21	55.0
B	0.11	0.11
C	- 18.4	- 40.0

iii. Limits for Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972 [35 IAC 212.322(c)]:

Metric P <u>Mg/hr</u>	E <u>kg/hr</u>	English P <u>T/hr</u>	E <u>lb/hr</u>
0.05	0.27	0.05	0.55
0.1	0.42	0.10	0.87
0.2	0.68	0.2	1.40
0.3	0.89	0.30	1.83
0.4	1.07	0.40	2.22
0.5	1.25	0.50	2.58
0.7	1.56	0.75	3.38
0.9	1.85	1.00	4.10
1.8	2.9	2.00	6.52
2.7	3.9	3.00	8.56
3.6	4.7	4.00	10.40
4.5	5.4	5.00	12.00
9.0	8.7	10.00	19.20
13.0	11.1	15.00	25.20
18.0	13.8	20.00	30.50
23.0	16.2	25.00	35.40
27.2	18.15	30.00	40.00
32.0	18.8	35.00	41.30
36.0	19.3	40.00	42.50
41.0	19.8	45.00	43.60
45.0	20.2	50.00	44.60
90.0	23.2	100.00	51.20
140.0	25.3	150.00	55.40
180.0	26.5	200.00	58.60
230.0	27.7	250.00	61.00
270.0	28.5	300.00	63.10
320.0	29.4	350.00	64.90
360.0	30.0	400.00	66.20
400.0	30.6	450.00	67.70
454.0	31.3	500.00	69.00

Attachment 3 Compliance Assurance Monitoring (CAM) Plans

Table 3. PSEU Designation:	Polystyrene Plant
Significant Emission Unit Section:	7.2
Pollutant:	HAP

Indicators:	#1: Heater Combustion Temperature	#2: Vacuum Vent Pressure
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GENERAL CRITERIA

THE MONITORING APPROACH USED TO MEASURE THE INDICATORS:	Combustion temperature is monitored by a thermocouple, Type S	Pressure in the vacuum vent header system is monitored by a Rosemount Pressure Transmitter
THE INDICATOR RANGE WHICH PROVIDES A REASONABLE ASSURANCE OF COMPLIANCE:	Greater than 640 Degrees C	Greater than 6 inches of water
QUALITY IMPROVEMENT PLAN (QIP) THRESHOLD LEVELS:	No more than one excursion below the indicator range in any semi-annual reporting period	No more than one excursion below the indicator range in any semi-annual reporting period

PERFORMANCE CRITERIA

THE SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA:	The sensor is installed in the combustion chamber of the heater. The range of the sensor is 0 to 1,425 Degrees C, + or - 2 Degrees C	The sensor is installed in the vent header line, close to the heater. The range of the sensor is -10 to +10 inches of water.
VERIFICATION PROCEDURES TO CONFIRM THE OPERATIONAL STATUS OF THE MONITORING:	Process computer alarm on low temperature reading	Process computer alarm on high pressure reading
QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES THAT ENSURE THE VALIDITY OF THE DATA:	Redundant sensors are installed	Annual preventive maintenance is performed on the sensor
THE MONITORING FREQUENCY:	Measured continuously by the process control computer. Recorded in history files on the mainframe computer	Measured continuously by the process control computer. Recorded in history files on the mainframe computer
THE DATA COLLECTION PROCEDURES THAT WILL BE USED:	See Monitoring Frequency above	See Monitoring Frequency above
THE DATA AVERAGING PERIOD FOR DETERMINING WHETHER AN EXCURSION OR EXCEEDANCE HAS OCCURRED:	No averaging is performed for purposes of determining whether an exceedance has occurred	No averaging is performed for purposes of determining whether an exceedance has occurred

Table 4. PSEU Designation:	Vinyl Ester Resin Plant
Significant Emission Unit Section:	7.3
Pollutant:	VOM

Indicators: #1: Temperature of Scrubbant

GENERAL CRITERIA

THE MONITORING APPROACH USED TO
MEASURE THE INDICATORS:

Temperature of the scrubbant is monitored by a Resistance
Temperature Device (RTD)

THE INDICATOR RANGE WHICH
PROVIDES A REASONABLE ASSURANCE
OF COMPLIANCE:

Less than 26 Degrees C

QUALITY IMPROVEMENT PLAN (QIP)
THRESHOLD LEVELS:

Any excursion above the indicator range

PERFORMANCE CRITERIA

THE SPECIFICATIONS FOR OBTAINING
REPRESENTATIVE DATA:

The sensor is installed on the scrubber inlet. The range of
the sensor is -50 to 200 Degrees C, + or - 20 Degrees C

VERIFICATION PROCEDURES TO
CONFIRM THE OPERATIONAL STATUS
OF THE MONITORING:

Process control computer alarms RTD failure

QUALITY ASSURANCE AND QUALITY
CONTROL (QA/QC) PRACTICES THAT
ENSURE THE VALIDITY OF THE DATA:

Redundant RTD's are installed. Calibration check is performed
every 18 months.

THE MONITORING FREQUENCY:

Measured continuously by the process control computer.
Recorded in history files on the mainframe computer.

THE DATA COLLECTION PROCEDURES
THAT WILL BE USED:

See Monitoring Frequency above

THE DATA AVERAGING PERIOD FOR
DETERMINING WHETHER AN EXCURSION
OR EXCEEDANCE HAS OCCURRED:

No averaging is performed for purposes of determining whether
an exceedance has occurred

Attachment 4 Guidance

The Illinois has prepared guidance for sources on the Clean Air Act Permit Program (CAAPP) that is available on the Internet site maintained by the Illinois EPA, www.epa.state.il.us. This guidance includes instructions on applying for a revision or renewal of the CAAPP permit.

Guidance On Revising A CAAPP Permit:

www.epa.state.il.us/air/caapp/caapp-revising.pdf

Guidance On Renewing A CAAPP Permit:

www.epa.state.il.us/air/caapp/caapp-renewing.pdf

The application forms prepared by the Illinois EPA for the CAAPP are also available from the Illinois EPA's Internet site:

www.epa.state.il.us/air/caapp/index.html

These CAAPP application forms should also be used by a CAAPP source when it applies for a construction permit. For this purpose, the appropriate CAAPP application forms and other supporting information, should be accompanied by a completed Application For A Construction Permit form (199-CAAPP) and Fee Determination for Construction Permit Application form (197-FEE):

www.epa.state.il.us/air/caapp/199-caapp.pdf

www.epa.state.il.us/air/permits/197-fee.pdf

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